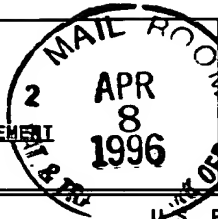


FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
448.0120002APPLICATION NO.
08/549,318APPLICANTS
AMMS et al.FILING DATE
October 27, 1995GROUP
(To Be Assigned) 1201

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA1	4,261,868	04/14/81	Hora et al.	252	529	08/08/79
AB1	4,369,183	01/18/83	Jones et al.	424	263	02/02/81
AC1	4,499,082	02/12/85	Shenvi et al.	514	2	12/05/83
AD1	4,510,130	04/09/85	Platt et al.	514	2	05/20/83
AE1	4,537,707	08/27/85	Severson, Jr.	252	545	05/14/84
AF1	4,537,773	08/27/85	Shenvi, A.B.	514	63	12/05/83
AG1	4,842,769	06/27/89	Shulman et al.	252	8.6	09/02/87
AH1	4,963,655	10/16/90	Kinder et al.	530	331	05/27/88
AI1	4,997,929	03/05/91	Collins et al.	536	27	09/08/89
AJ1	5,030,378	07/09/91	Venegas, M.G.	252	174.12	08/06/90
AK1	5,106,948	04/21/92	Kinder et al.	530	331	08/28/90

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AL1	EP 0 145 441	06/19/85	Europe			Yes No
AM1	EP 0 293 881	12/07/88	Europe			Yes No
AN1	WO 88/10266	12/29/88	PCT			Yes No
AO1	EP 0 315 574	05/10/89	Europe			Yes X No
AP1	EO 0 354 522	02/14/90	Europe			Yes X No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	1	Aoyagi, T., and Umezawa, H., "Structures and Activities of Protease Inhibitors of Microbial Origin," in: <i>Proteases and Biological Control</i> , vol. 2, Reich, E., et al., eds., Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, pp. 429-454 (1975).
AS	1	Bachovin, W.W., et al., "Nitrogen-15 NMR Spectroscopy of the Catalytic-Triad Histidine of a Serine Protease in peptide Boronic Acid Inhibitor Complexes," <i>Biochemistry</i> 27:7689-7697 (1988).
AT	1	Berry, S.C., et al., "Interaction of Peptide Boronic Acids With Elastase: Circular Dichroism Studies," <i>Proteins: Structure, Function, and Genetics</i> 4:205-210 (1988).

EXAMINER

DATE CONSIDERED

4-28-97

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1448.0120002		APPLICATION NO. 08/549,318	
<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> MAIL ROOM APR 8 1996 U.S. PATENT DOCUMENTS </div>				APPLICANTS ADAMS et al.		GROUP (To Be Assigned) 201	
				FILING DATE October 27, 1995			

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA2	5,169,841	12/08/92	Kleeman et al.	514	63	11/03/88
AB2	5,187,457	02/16/93	Kettner et al.	514	18	04/06/88
AC2	5,242,904	09/07/93	Kettner et al.	514	18	03/09/92
AD2	5,250,720	10/05/93	Kettner et al.	558	288	03/09/92
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
AL2	DE 38 27 340	02/15/90	Germany			Yes X No	
AM2	EP 0 363 284	04/11/90	Europe			Yes No	
AN2	EP 0 364 344	04/18/90	Europe			Yes No	
AO2	EP 0 381 262	08/08/90	Europe			Yes No	
AP2	EP 0 393 457	10/24/90	Europe			Yes No	

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	2	Castro, B., et al., "Peptide Coupling Reagents VI. A Novel, Cheaper Preparation of Benzotriazolyloxytris(dimethylamino)phosphonium Hexafluorophosphate (BOP Reagent)," <i>Synthesis</i> 11:751-752 (1976).	
AS	2	Dick, L.R., et al., "Degradation of Oxidized Insulin B Chain by the Multiproteinase Complex Macropain (Proteasome)," <i>Biochemistry</i> 30:2725-2734 (1991).	
AT	2	Goldberg, A.L., "The Mechanism and Functions of ATP-Dependent Proteases in Bacterial and Animal Cells," <i>Eur. J. Biochem.</i> 203:9-23 (1992).	

EXAMINER <div style="font-family: cursive; font-size: 1.2em;">Ramsuer</div>	DATE CONSIDERED 4-28-97
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1448.0120002		APPLICATION NO. 08/549,318	
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				GROUP (To Be Assigned) 1201			

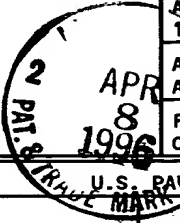
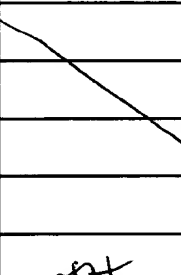

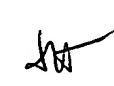
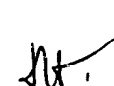
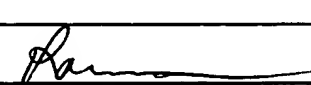
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
	WO 91/13904	09/19/91	PCT			Yes No	
41	EP 0 471 651	02/19/92	Europe			Yes No	
	EP 0 478 050	04/01/92	Europe			Yes No	
51	WO 92/07869	05/04/92	PCT			Yes No	
	WO 92/11850	07/23/92	PCT			Yes No	

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	3	Goldberg, A.L., and Rock, K.L., "Proteolysis, Proteasomes and Antigen Presentation," <i>Nature</i> 357:375-379 (1992).	
AS	3	Hershko, A., and Ciechanover, A., "The Ubiquitin System for Protein Degradation," <i>Annu. Rev. Biochem.</i> 61:761-807 (1992).	
AT	3	Kettner, C.A., and Shenvi, A.B., "Inhibition of the Serine Proteases Leukocyte Elastase, Pancreatic Elastase, Cathepsin G, and Chymotrypsin by Peptide Boronic Acids," <i>J. Biol. Chem.</i> 259(24):15106-15114 (1984).	

EXAMINER <i>Ramsuer</i>	DATE CONSIDERED 4-28-97
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1448.0120002		APPLICATION NO. 08/549,318	
				APPLICANTS ADAMS et al.		GROUP (To Be Assigned) 1201	
				FILING DATE October 27, 1995			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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	AL4	WO 92/12140	07/23/92	PCT			Yes No
	AM4	EP 0 511 456	11/04/92	Europe			Yes No
	AN4	WO 92/19707	11/12/92	PCT			Yes No
	AO4	WO 92/19709	11/12/92	PCT			Yes No
	AP4	WO 93/21213	10/28/93	PCT			Yes No
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	4	Kettner, C.A., et al., "Kinetic Properties of the Binding of α -Lytic Protease to Peptide Boronic Acids," <i>Biochemistry</i> 27:7682-7688 (1988).				
	AS	4	Kinder, D.H., and Katzenellenbogen, J.A., "Acylamino Boronic Acids and Difluoroborane Analogues of Amino Acids: Potent Inhibitors of Chymotrypsin and Elastase," <i>J. Med. Chem.</i> 28:1917-1925 (1985).				
	AT	4	Kinder, D.H., et al., "Antimetastatic Activity of Boro-Amino Acid Analog Protease Inhibitors against B16BL6 Melanoma in vivo," <i>Invasion Metastasis</i> 12:309-319 (1992).				
EXAMINER					DATE CONSIDERED		
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT		ATTY. DOCKET NO. 1448.0120002		APPLICATION NO. 08/549,318	
MAIL APR 8 1996 PAT. & T.B.		APPLICANTS. ARMS et al.		FILING DATE October 27, 1995	
U.S. PATENT DOCUMENTS		GROUP (To Be Assigned) 1201			

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
<i>JA</i>	AL5	WO 93/21214 ✓	10/28/93	PCT			Yes No
	AM5	EP 0 583 536	02/23/94	Europe			Yes No
	AN5	WO 94/21668	09/29/94	PCT			Yes No
	AO5	WO 94/23045	10/13/94	PCT			X Yes No
	AP5	95/09858	04/13/95	PCT			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
<i>JA</i>	AR	2	Li, X., et al., "Isolation and Characterization of a Novel Endogenous Inhibitor of the Proteasome," <i>Biochemistry</i> 30:9709-9715 (1991).
<i>JA</i>	AS	2	Lim, M.S.L., et al., "The Solution Conformation of (D)Phe-Pro-Containing Peptides: Implications on the Activity of Ac-(D)Phe-Pro-boroArg-OH, a Potent Thrombin Inhibitor," <i>J. Med. Chem.</i> 36(13):1831-1838 (June 25, 1993).
<i>JA</i>	AT	2	Matteson, D.S., et al., "(R)-1-Acetamido-2-phenylethaneboronic Acid. A Specific Transition-State Analogue for Chymotrypsin," <i>J. Am. Chem. Soc.</i> 103:5241-5242 (1981).

EXAMINER <i>Ramona</i>	DATE CONSIDERED 4-28-98
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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1448.0120002APPLICATION NO.
08/549,318APPLICANTS
ADAMS et al.FILING DATE
October 27, 1995GROUP
~~40-20 Assigned~~ 1201

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	6	Murakami, K., and Etlinger, J.D., "Endogenous Inhibitor of Nonlysosomal High Molecular Weight Protease and Calcium-Dependent Protease," <i>Proc. Natl. Acad. Sci. USA</i> 83:7588-7592 (1986).
	AS	6	Rechsteiner, M., "Ubiquitin-Mediated Pathways for Intracellular Proteolysis," <i>Ann. Rev. Cell Biol.</i> 3:1-30 (1987).
	AT	6	Rivett, A.J., "The Multicatalytic Proteinase. Multiple Proteolytic Activities," <i>J. Biol. Chem.</i> 264(21):12215-12219 (1989).

EXAMINER

Ramsuer

DATE CONSIDERED

4-28-87

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1048.0120002		APPLICATION NO. 08/549,318	
APPLICANTS ADAMS et al.				FILING DATE October 27, 1995		GROUP (To Be Assigned) 1201	

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
/	AR	Z	Rivett, A.J., "The Multicatalytic Proteinase of Mammalian Cells," <i>Arch. Biochem. Biophys.</i> 268(1):1-8 (1989).
/	AS	Z	Rock, K.L., et al., "Inhibitors of the Proteasome Block the Degradation of Most Cell Proteins and the Generation of Peptides Presented on MHC Class I Molecules," <i>Cell</i> 78:761-771 (September 9, 1994).
/	AT	Z	Sheehan, J.C., et al., "A Rapid Synthesis of Oligopeptide Derivatives Without Isolation of Intermediates," <i>J. Am. Chem. Soc.</i> 87(11):2492-2493 (1965).

EXAMINER 	DATE CONSIDERED 4-28-97
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 1448.0120002		APPLICATION NO. 08/549,318	
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				GROUP (To Be Assigned) 1701			

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	8	Takahashi, L.H., et al., "Crystallographic Analysis of the Inhibition of Porcine Pancreatic Elastase by a Peptidyl Boronic Acid: Structure of a Reaction Intermediate," <i>Biochemistry</i> 28:7610-7617 (1989).
	AS	8	Tanaka, K., et al., "Proteasomes: Protein and Gene Structures," <i>New Biol.</i> 4(3):173-187 (1992).
	AT	8	Tsai, D.J.S., et al., "Diastereoselection in Reactions of Pinanediol Dichloromethaneboronate," <i>Organometallics</i> 2:1543-1545 (1983).

EXAMINER	DATE CONSIDERED 4-28-97
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1448.0120002 APPLICANTS ADAMS et al. FILING DATE October 27, 1995	APPLICATION NO. 08/549,318 GROUP (To Be Assigned) 1201
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
SH	AR	2	Tsilikounas, E., et al., "Identification of Serine and Histidine Adducts in Complexes of Trypsin and Trypsinogen with peptide and Nonpeptide Boronic Acid Inhibitors by ¹ H NMR Spectroscopy," <i>Biochemistry</i> 31:12839-12846 (1992).
SH	AS	2	Veale, C.A., et al., "Nonpeptidic Inhibitors of Human Leukocyte Elastase. 5. Design, Synthesis, and X-ray Crystallography of a Series of Orally Active 5-Aminopyrimidin-6-one-Containing Trifluoromethyl Ketones," <i>J. Med. Chem.</i> 38(1):98-108 (January 6, 1995).
	AT	2	

EXAMINER Ran	DATE CONSIDERED 4-28-95
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